

## Issues Regarding the Application of Blockchain Technology in Competition Law

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### Abstract

Blockchain technology has the potential to revolutionize many industries, but this hottest technology gives rise to questions under competition-related legislation. Viewed from a competition policy perspective, a blockchain might create opportunities to enhance competition and efficiency, but it also brings risks of anticompetitive conduct. To treat the competition-related legal issues involved in blockchain technology, it is necessary to first define the “relevant market” and measure the “market power” of the relevant competitors. Although the blockchain has moved beyond the experimental stage and exhibits the possibility of diversified applications, it has not yet emerged into the mainstream. The author suggests that the blockchain product market should be divided into a “Blockchain Basic Services Market” and a “Blockchain Application (dApp) Market”. In judging the market power of competitive enterprises, the revenue data can be given priority. If the revenue information is incomplete or in doubt, the relevant data of the blockchain system itself can be used as auxiliary factors, such as the number of users, number of recorded transactions, number of smart contracts, or number of blocks. Furthermore, a combination of these may be relied on to assess the dominance. In addition, as to whether the “amount of computing” should be taken into account in judging market power, with the continued emergence of new consensus mechanisms and major changes in the mining pools, there is still uncertainty and it should thus depend on the circumstances of each case. Blockchain technology not only leads to innovation in new relevant markets, but it also changes the appearance and operating patterns of many existing markets. Even if the blockchain itself is not yet a relevant market, its technical characteristics still have a direct impact on the enforcement of competition law. In thinking about how to overcome the challenges posed by blockchain and other emerging technologies, we should also consider the possibility of transforming those technologies into useful regulatory tools at the same time.

**Keywords:** Blockchain, Competition Law, Relevant Market, Market Power, Blockchain as a Service, Decentralized Applications.

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